We Claim:

1. A process for producing a one-piece, structured metal foil having an interior hole, a predetermined, curved outer contour and an inner contour delimiting the hole, which comprises the following steps:

initially providing a smooth blank having an outer edge disposed substantially concentrically outside the outer contour to be produced and having an inner edge disposed substantially concentrically outside the inner contour to be produced; and

then imparting a structure to the smooth blank to form the metal foil by processing the smooth blank with an approximately uniform degree of deformation in an inner boundary region and an outer boundary region.

2. The process according to claim 1, which further comprises imparting substantially radially running formations to the metal foil during the step of imparting the structure.

3. The process according to claim 1, which further comprises carrying out the step of imparting the structure to cause a distance from the inner edge to the outer edge of the blank to

approximately correspond to a distance from the outer contour to the inner contour of the metal foil.

4. The process according to claim 1, which further comprises carrying out the step of imparting the structure by stamping in a wave form having a predetermined wave height and a predetermined wave length.

5. The process according to claim 4, which further comprises carrying out the step of imparting the structure by providing an approximately identical wave height in the inner boundary region and in the outer boundary region, but a shorter wave length in the inner boundary region than in the outer boundary region.

6. The process according to claim 1, which further comprises constructing the inner contour and outer contour as well as the inner edge and outer edge to be round and mutually concentric.

7. The process according to claim 1, which further comprises carrying out the step of imparting the structure with a multi-stage tool only partially producing the structure at each stage.

8. The process according to claim 7, wherein the multi-stage tool is a multi-stage wave-stamping tool.

9. The process according to claim 1, which further comprises:

providing the inner edge of the blank with a first periphery, providing the outer edge of the blank with a second periphery, providing the inner contour of the metal foil with a third periphery, and providing the outer contour of the metal foil with a fourth periphery;

constructing the first periphery and the second periphery to be respectively larger by a shortening factor than the third periphery and the fourth periphery; and

selecting the shortening factor as a function of the structure to be produced.

10. The process according to claim 9, which further comprises carrying out the step of imparting the structure by providing a wave form with a wave height and a wave length, and setting the shortening factor to be between 1.1 and 1.6.

11. The process according to claim 10, which further comprises setting the shortening factor to be between 1.25 and 1.45.

12. A metal foil for a catalyst carrier body, comprising:

a one-piece body having:

an interior with a hole formed therein;

an inner contour delimiting said hole;

an outer contour; and

a structure with approximately radially running formations.

13. The metal foil according to claim 12, wherein said one-piece body is seamless.

14. The metal foil according to claim 12, wherein said formations of said structure are radially running wave peaks and wave valleys having a wave height and a wave length.

15. The metal foil according to claim 12, wherein said wave height is constant in radial direction, and said wave length increases in radial direction.

16. The metal foil according to claim 14, wherein said body has an inner boundary region and an outer boundary region, and said inner boundary region has more of said wave peaks and said wave valleys than said outer boundary region.

17. The metal foil according to claim 12, wherein said body has a foil thickness of less than 0.065 mm.

18. The metal foil according to claim 12, wherein said body has a foil thickness of between 0.015 mm and 0.03 mm.

19. The metal foil according to claim 12, wherein said structure is constructed with a microstructure.

20. The metal foil according to claim 12, wherein said body is substantially planar.

21. A honeycomb body, comprising:

a central passage having an incoming flow axis; and

a multiplicity of one-piece metal foils each disposed substantially parallel to a plane, said metal foils being at least partially formed with a structure defining passages through which a gas can flow, and said structure having approximately radially running formations.

22. The honeycomb body according to claim 21, wherein said metal foils are perpendicular to said incoming flow axis.

23. The honeycomb body according to claim 21, which further comprises smooth, annular metal disks disposed between said metal foils.

24. The honeycomb body according to claim 23, wherein said metal disks have at least one of elevations and openings.

25. The honeycomb body according to claim 21, wherein said passages have a passage density close to said central passage of greater than 600 cpsi.

26. The honeycomb body according to claim 21, wherein said passages have a passage density close to said central passage of greater than 800 cpsi.

27. The honeycomb body according to claim 21, wherein said passages have a passage density close to said central passage of greater than 1000 cpsi.

28. A honeycomb body for purifying an exhaust gas from an internal combustion engine, comprising:

a central passage having an incoming flow axis for the exhaust gas; and

a multiplicity of one-piece metal foils each disposed substantially parallel to a plane, said metal foils being at least partially formed with a structure defining passages through which the exhaust gas can flow, and said structure having approximately radially running formations.